

REMARKS

The foregoing amendments and these remarks are in response to the Office Action dated June 21, 2010. Applicant requests a three month extension of time, and authorization is given to charge the appropriate fees to Deposit Account No. 50-0951.

At the time of the Office Action, claims 1-5 were pending in the application. Claims 1-5 were rejected under 35 U.S.C. §102(b). The objections and rejections are discussed in more detail below.

I. Rejections based upon Art

Claims 1-5 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,219,589 to Niks et al. (hereafter "*Niks*"). Applicant respectfully requests reconsideration of this rejection.

Both the fluid bed granulation process of present claim 1 and the process of *Niks* comprise the steps of forming a granule fluid bed through a flow of fluidization air, and feeding such a fluid bed with seeds of the substance to be granulated and with a continuous flow of growth substance. However, when the process of *Niks* is in operation (i.e. under steady state process conditions), a substantially identical, homogeneous flow rate of the fluidization air is fed to the entire fluid bed through a grid 7. There is no single word or element in *Niks* that could have directed the skilled person to think or to imagine that the flow rate of the fluidization air fed to the fluid bed can vary from zone to zone of the fluid bed. This does not happen even in the starting phase of the process. Even if the grid 7 physically divides the flow of fluidization air in a plurality of fractions when it is fed into the fluid bed, *Niks* is totally silent about the claimed feature of dividing the flow of fluidizing air into fractions having different flow rates fed at corresponding different zones of the fluid bed.

In this respect the Examiner's assertion that since the air flow in *Niks* is fed through duct 8 into one side only of the granulator 1 then at least for some period of time in the operation of the process (i.e. before the process reaches the steady state) the flow rate of the fluidization air fed into the fluid bed through the grid 7 is not homogeneous, is fully traversed. First of all, it is noted that in *Niks* the time required by the flow of fluidization air to invest the whole grid 7 in order to form the fluid bed is extremely short. For instance, if example 2 of *Niks* is considered, it is immediately

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apparent that a considerable amount of fluidization air is used for a relatively small amount of seeds ( $700\text{ m}^3$  air per hour for 30-35 kg urea seeds, column 7, lines 6-9). This means that the fluid bed is formed instantaneously after the fluidization air enters the granulator 1 from duct 8. Secondly, it should be observed that when a process claim is considered then it should be analyzed when the process is under operation (i.e. in its steady state) unless the claim specifically refers to the starting phase or the shut down phase. For this latter reason, the comparison made by the Examiner between the process of *Niks* in its starting (unsteady) phase and the process of claim 1 is improper.

Even though Applicant disagrees with the rejection over *Niks*, claim 1 is amended herein purely in the interests of expeditious prosecution by inserting the term "continuously" before "divided" in the last wherein clause to clearly indicate that the feature of dividing the fluidizing air into different flow rates is particularly present when during the steady state of the process (see for instance paragraphs [0042] to [0044] for proper support). This further differentiates the claimed process from that of *Niks*.

Moreover, *Niks* also fails to disclose the feature of feeding fractions of the fluidizing air with values of the flow rate which are higher than the value of the flow rate sufficient for forming and supporting the fluid bed. Indeed in *Niks* it is only mentioned that the fluidizing air is for fluidizing the granules contained in the fluid bed. No mention at all is made in *Niks* about feeding fractions of the fluidizing air with a flow rate having higher values capable of inducing and maintaining a vortex-shaped movement of the granules within the fluid bed. In this respect, no confusion should be made between the homogeneous flow rate of the fluidizing air in *Niks* and the much higher velocity of the spraying air supplied through conduit 14 via sprayers 9-12. In other words, *Niks* only discloses and teaches to use a single, homogeneous flow rate value for all the fluidizing air fed to the fluid bed, which is merely sufficient to fluidize such bed and no more.

Furthermore, the features of claim 1 related to the formation and maintenance within the fluid bed of a vortex-shaped circulatory movement of the granules by means of at least a portion of the fluidization air, wherein the circulatory movement has a substantially horizontal axis, are also totally missing from *Niks*. To assert the contrary is the result of an inadmissible hindsight analysis of the present claims and thus is traversed. Actually, *Niks*, apart from being totally silent concerning these features, provides for air sprayers 9-12 which inject air in the fluid bed at high

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speed and pressure (see for instance example 1, column 6, lines 43-44 or example 2, column 7, lines 13-14) thus rendering technically impossible for the fluidizing air to induce and maintain the claimed movement of the granules.

It follows that the subject-matter of claim 1 differs from the process of *Niks* at least by all the steps recited after the feeding step of the growth substance.

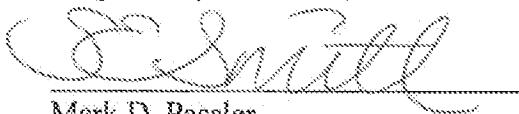
For the foregoing reasons, claim 1 is believed to relate to patentable subject matter, and to be in condition for allowance. The dependent claims are believed allowable because of their dependence upon an allowable base claim, and because of the further features recited.

## II. Conclusion

Applicant has made every effort to present claims which distinguish over the prior art, and it is thus believed that all claims are in condition for allowance. Nevertheless, Applicant invites the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. In view of the foregoing remarks, Applicant respectfully requests reconsideration and prompt allowance of the pending claims.

Respectfully submitted,

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